

REPLACEMENT DRAWING SHEETS
IN RESPONSE TO NOTICE TO FILE MISSING PARTS OF 12/23/2003

Serial No. 10/675,372

Filed 09/30/2003

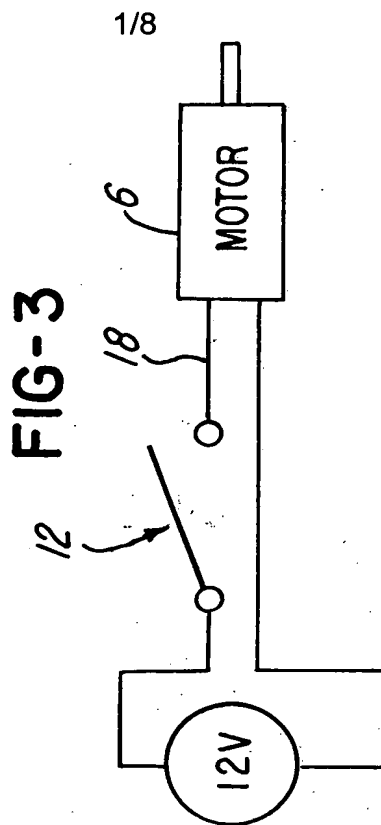
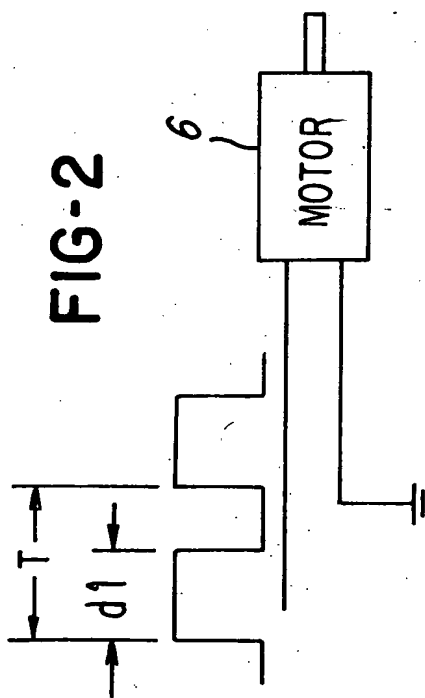
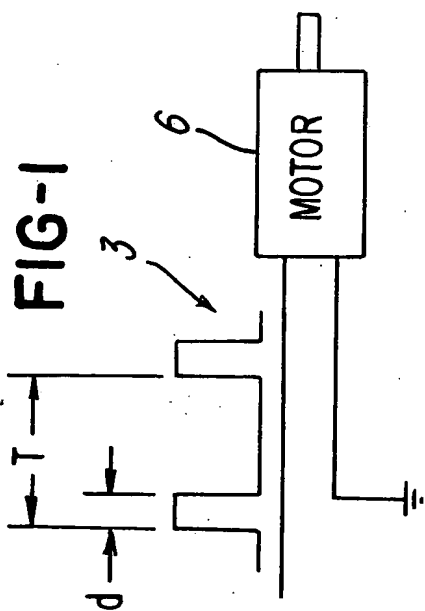
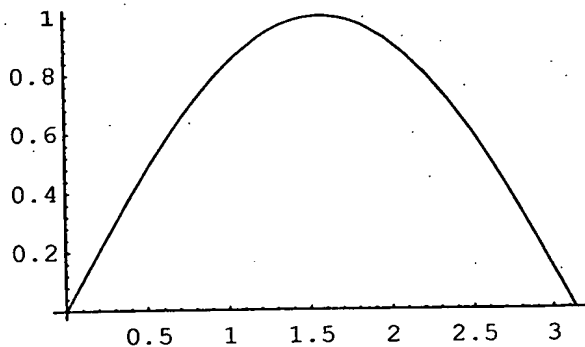
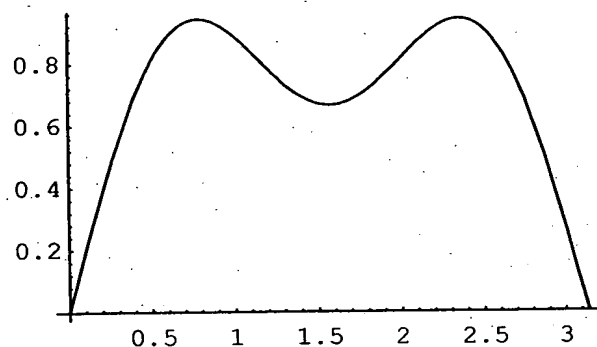


FIG - 4

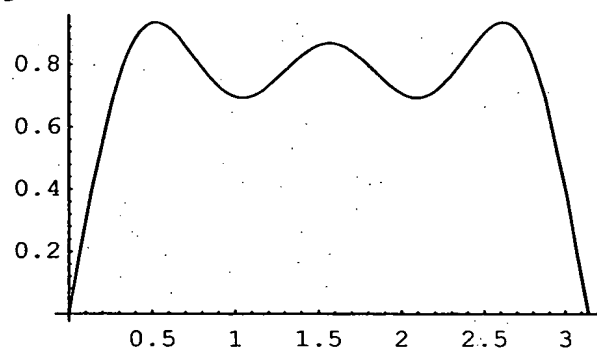
`Plot[{Sin[x]},{x, 0, Pi}]` 2/8



`Plot[{Sin[x]} + (1/3)Sin[3x],{x, 0, Pi}]`



`Plot[{Sin[x]} + (1/3)Sin[3x] + (1/5)Sin[5x],{x, 0, Pi},
PlotRange->All]`



`Plot[{Sin[x]} + (1/3)Sin[3x] + (1/5)Sin[5x]
+ (1/7)Sin[7x],{x, 0, Pi}, PlotRange->All]`

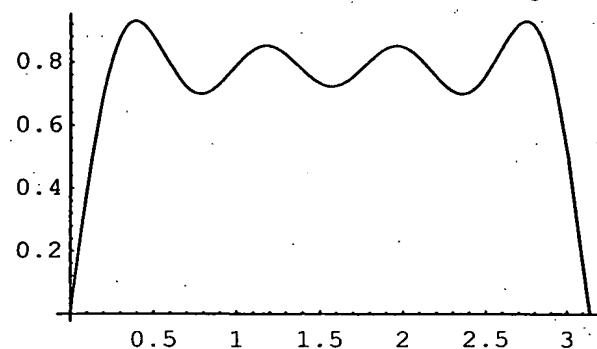
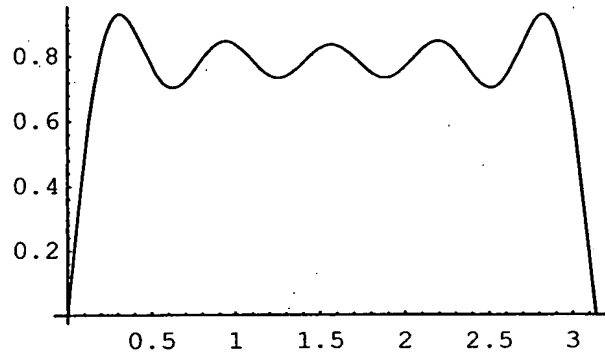


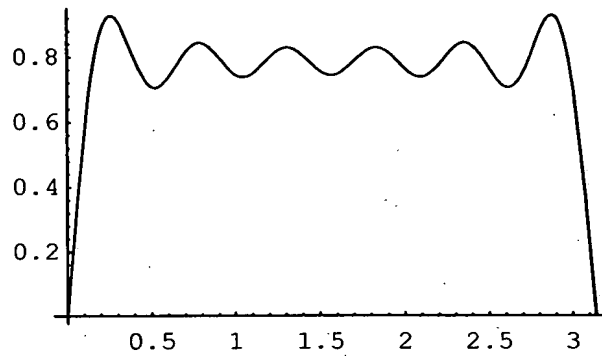
FIG - 5

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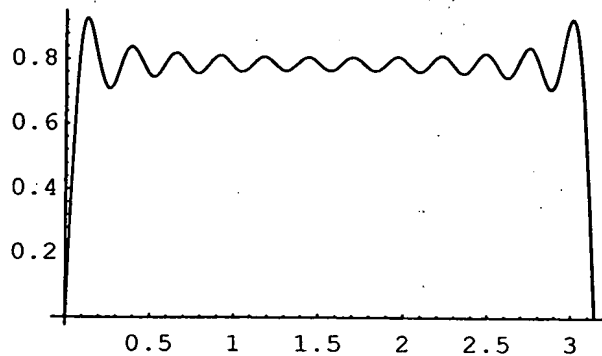
```
Plot[{Sin[x]} + (1/3)Sin[3x] + (1/5)Sin[5x]  
+ (1/7)Sin[7x] + (1/9)Sin[9x], {x, 0, Pi}, PlotRange->All]
```



```
Plot[{Sin[x]} + (1/3)Sin[3x] + (1/5)Sin[5x]  
+ (1/7)Sin[7x] + (1/9)Sin[9x] + (1/11)Sin[11x],  
{x, 0, Pi}, PlotRange->All]
```



```
Plot[{Sin[x]} + (1/3)Sin[3x] + (1/5)Sin[5x]  
+ (1/7)Sin[7x] + (1/9)Sin[9x] + (1/11)Sin[11x]  
+ (1/13)Sin[13x] + (1/15)Sin[15x] + (1/17)Sin[17x]  
+ 1/19Sin[19x] + (1/21)Sin[21x] + (1/23)Sin[23x],  
{x, 0, Pi}, PlotRange->All]
```



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FIG - 6

$$x(t) = \sum_{k=-\infty}^{\infty} c_k e^{jk\omega_0 t}$$

Equation (1)

$$\omega_0 = 2\pi / T_0$$

Equation (2)

$$c_k = A \frac{d}{T_0} \frac{\sin(k\omega_0 d / 2)}{k\omega_0 d / 2} e^{-jk\omega_0 d / 2}$$

Equation (3)

$$\text{FACT: } \exp(jt) = e^{jt}$$

Equation (4)

$$\text{IF } d = T_0 / 4$$

$$\text{THEN } k\omega_0 d / 2 = k\pi d / T_0 = k\pi / 4$$

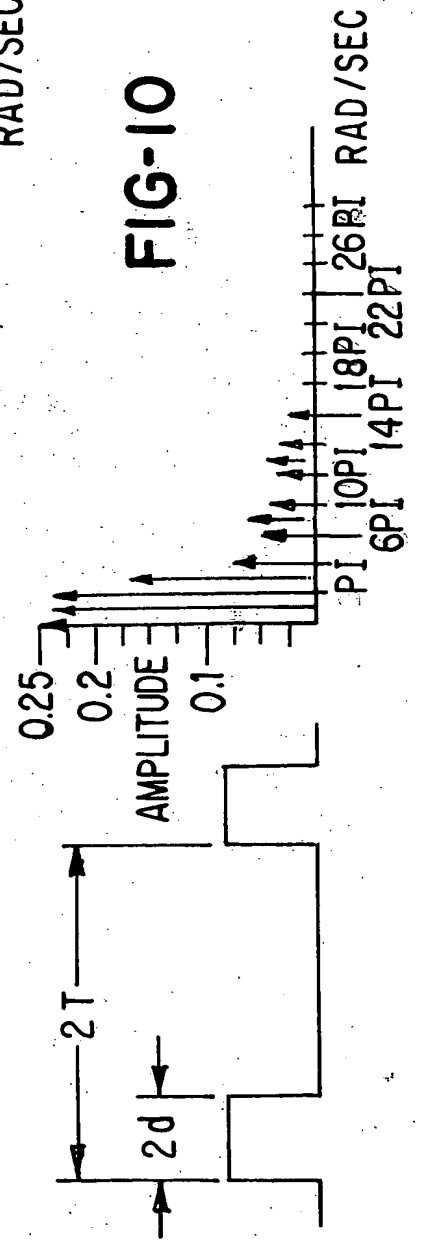
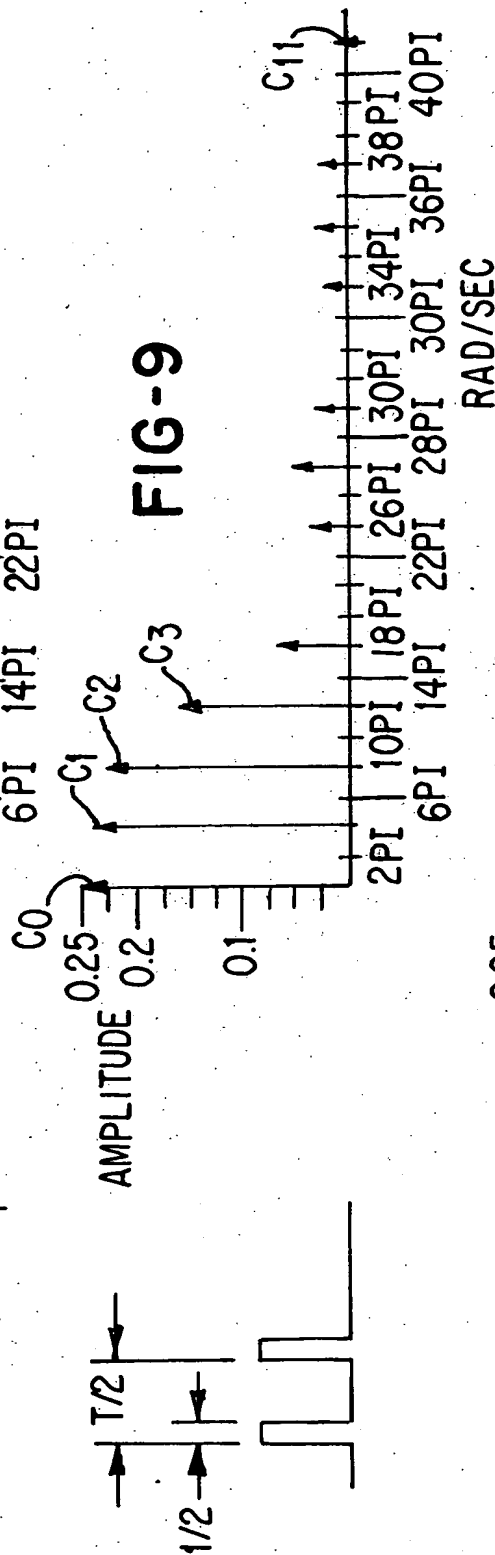
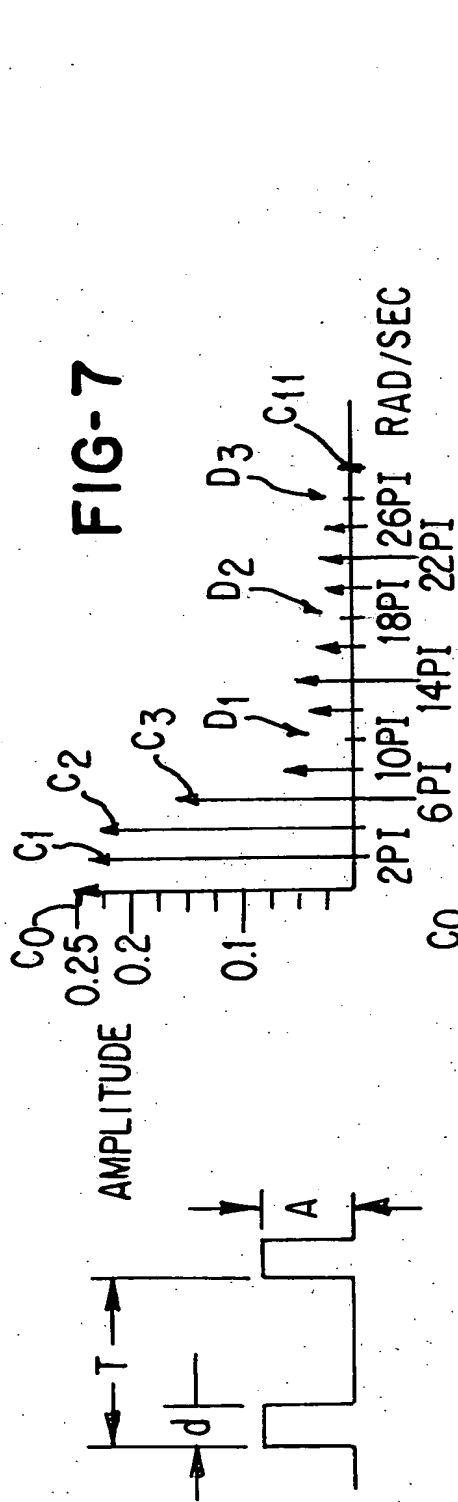
$$\text{THUS } e^{-jk\omega_0 d / 2} = e^{-jk\pi / 4} = -j \sin(k\pi / 4) = + / - j$$

Equation (5)

$$|c_k| = \frac{A}{4} \left| \frac{\sin(k\pi / 4)}{k\pi / 4} \right|$$

Equation (6)

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FIG-8

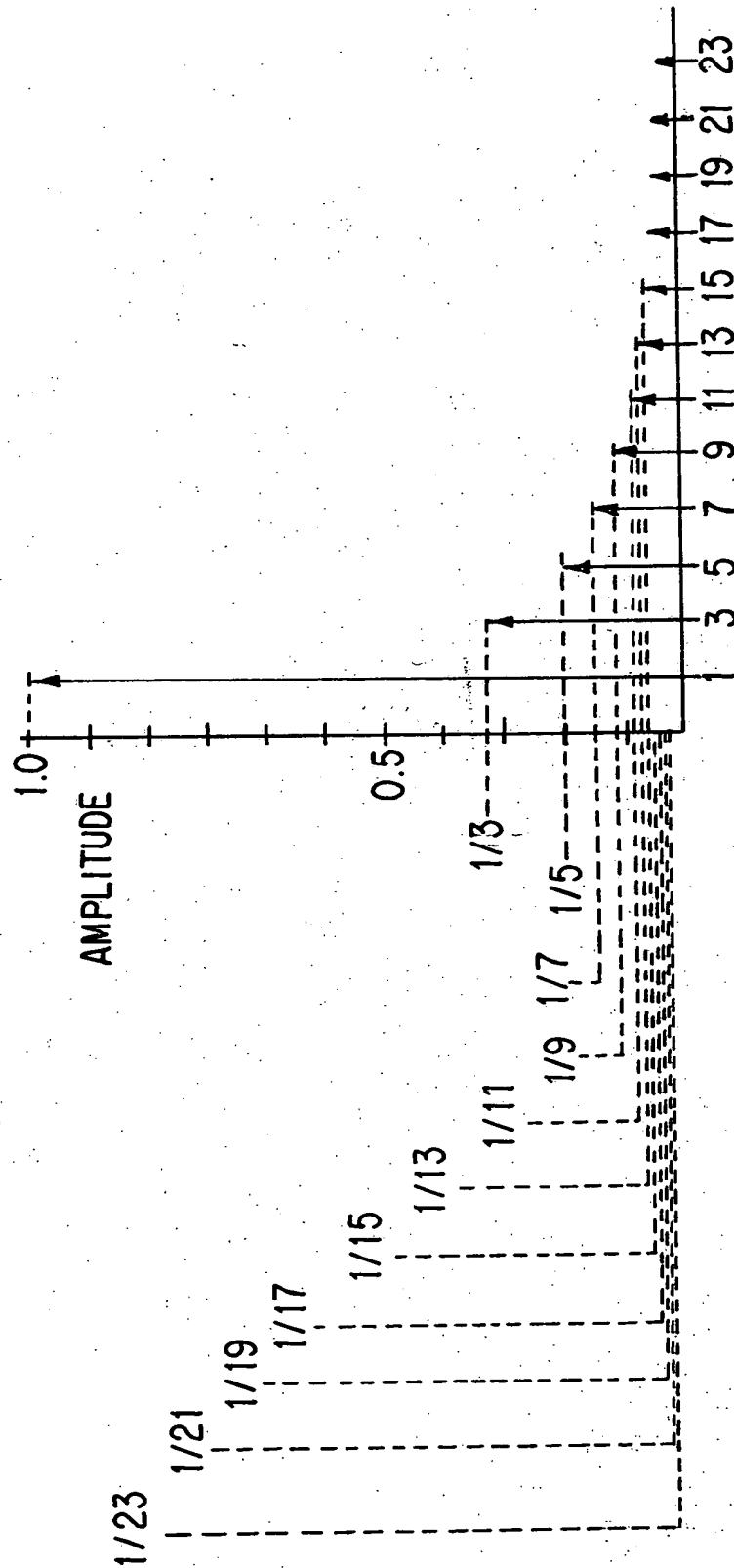
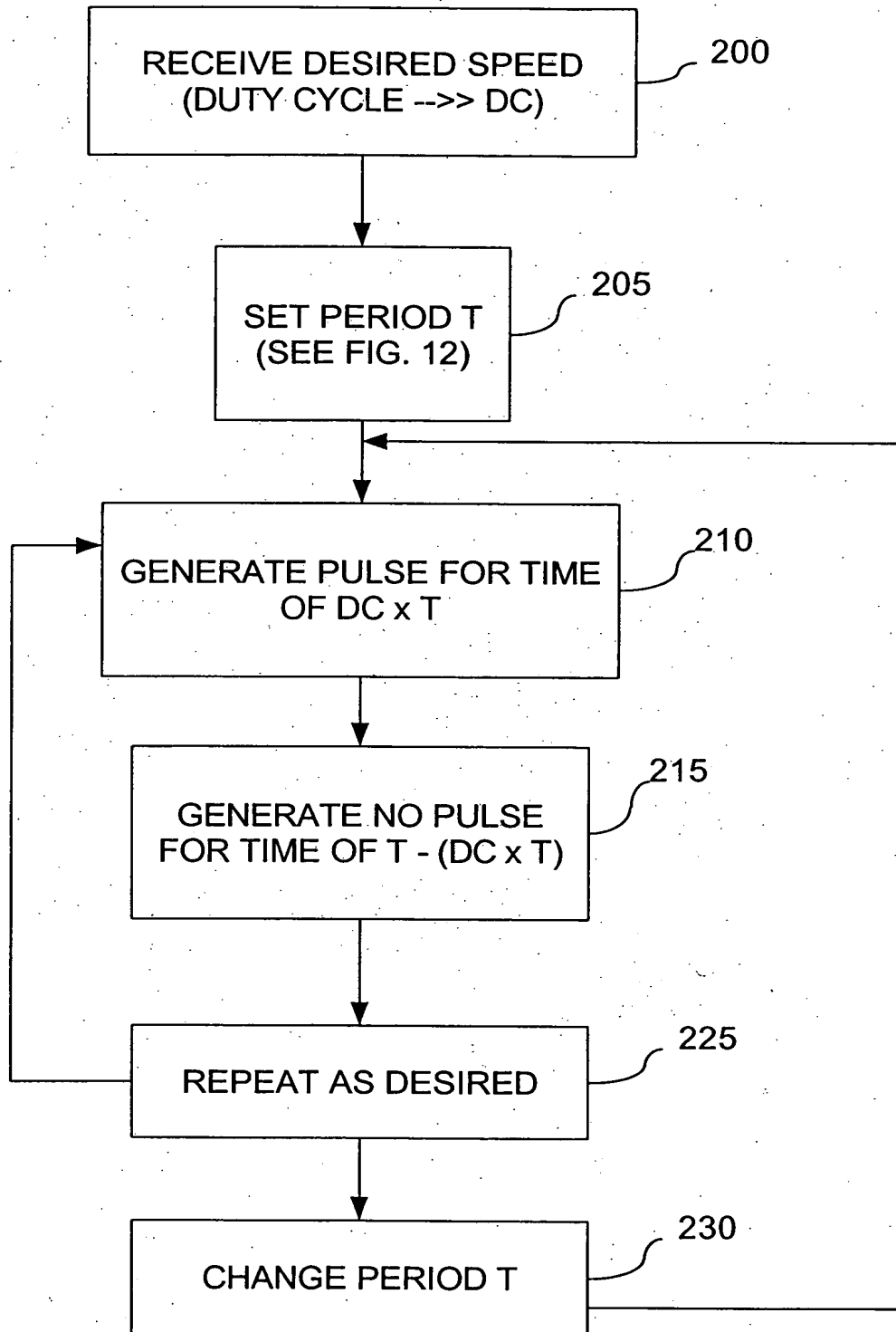


FIG - 11

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